

REMARKS1. The Amendments and the Support Therefor

Two claims (22 and 27) have been canceled, four new claims (38-41) have been added, and claims 1, 2, 17-19, 21, 28, and 35-37 have been amended to leave claims 1-21, 23-26, 28, and 35-41 in the application. No new matter has been added by the amendments or new claims, wherein:

- *Independent claims 1, 28, 35, and 37* have been amended to:
 - further detail the nature of the authorisation request (see, e.g., page 7 line 10 onward of the application, discussing collection of card account data and "card-present" data such as an authorization code);
 - incorporate features of claim 22 and further clarify some of the claim terminology (e.g., "funds transfer authorisation" rather than "transaction authorization," "meter location" rather than merely "location," etc.); and
 - in the case of claims 35 and 37, recite that the interface unit and utility meter are separate (see, e.g., the interface unit 10 and meter 30 of FIG. 1).
- *Dependent claims 2, 17-19, 21, and 36*, all dependent from claim 1 or claim 35, have been amended to conform their language to that of claims 1 and 35.

Further comments regarding the new claims are set out below at Section 3 below.

2. Rejection of Claims 1-12, 14-23, 27-28, and 35-37 under 35 USC §103(a) in view of U.S. Patent 6,529,883 to Yee et al. and U.S. Patent 4,351,028 to Peddie et al.

Kindly reconsider and withdraw the rejections, since no ordinary artisan would truly modify *Yee* to attain the claimed invention. Further explanation follows.

It is initially useful to review the present invention. As described in the Background section of the present application, financiers such as credit card providers are concerned with fraudulent use of credit card numbers, and they prefer credit card transactions wherein the credit card being used is verified as being present at a particular location. Otherwise, a premium (e.g., a greater percentage of the purchase price) may be charged to the vendor to cover the cost of the increased risk that the transaction is fraudulent. The claimed system relates to verification of credit card presence by

sending, when a charge authorization request is made, both typical charge authorization data *and* also data related to the identity (and thus the location) of a nearby utility meter. Since utility meters are fixed in their locations, and since many utility companies provide utility meters with unique identification numbers or other identifiers, meter identification can allow the location of a charge authorization request to be identified with a relatively high degree of certainty. As discussed in the application, the system can be used to make utility payments as well as payments for other goods/services.

U.S. Patent 6,529,883 to *Yee et al.* then relates to a prepayment utility metering system. A memory card is loaded with funds at a customer service center (column 2 lines 48-51). A utility meter 12 and customer terminal 11 are located in the customer residence (as illustrated in FIG. 1). The customer terminal is illustrated in greater detail in FIG. 4 (and is discussed at column 4 line 45 onward), and includes a card reader 41 for the memory card. The utility meter 12 is illustrated in greater detail in FIG. 5, and is discussed at column 5 line 35 onward. When a fund-loaded memory card is inserted into the customer terminal 11, its data is transmitted to the nearby utility meter 12 over the power line within the customer residence (column 4 lines 49-62), and the funds loaded on the memory card are then credited to the utility meter 12 (column 6 lines 6-8) to allow prepayment for some amount of energy (or water, etc.). See also column 7 lines 18-41. The utility meter 12 has an IP address (column 4 lines 66-67, column 5 lines 50-52), and the memory card stores the address such that the customer terminal 11 only applies the memory card's funds to the corresponding utility meter 12 (column 6 lines 9-12).

Note that the utility company does not directly communicate with the utility meter 12 and/or customer terminal 11 (save for supplying electricity); rather, communication of information such as electricity consumption, etc. is stored by the customer terminal 11 on the memory card, which in turn communicates this data to the utility company when the card is reloaded with funds at the customer service center (column 2 lines 41-45, column 6 lines 43-45, column 7 lines 38-41). This is in accordance with *Yee's* objective that the *Yee* system be easy and inexpensive to install (see column 1 lines 60-64): note that the *Yee* system is "self-contained" in that the utility meter 12 and terminal 11 can be installed/retrofit at some location, without the need to also install some form of

data communication line between the system (the utility meter 12 and terminal 11) and the utility itself. Instead, data communication with the utility only occurs through the memory card.

In prior Office Actions, it appears that portions of the *Yee* system are misunderstood. For example, the Final Office Action of February 20, 2007 stated, at page 8, that:

[The examiner points out that *Yee* system specifically teaches communicating information (including meter identification number and a utility account number) between the meter and the utility (C. 3, l. 29-67), and obtaining authorization of the transaction. A necessary infrastructure, including network connection between a bank, utility, and meter, is in place.

This is incorrect, and a review of the cited column 3 lines 29-67, and of *Yee* in general, show that *Yee* does not communicate information between the meter and the utility. Rather, the cited passages discuss the communication of information between a *technician's service terminal 26* (see FIG. 1) and the utility; see column 3 line 29 onward. *Yee*'s utility meter 12 only receives information (regarding the prepaid funds loaded onto the memory card) from the customer terminal 11 provided at the customer's residence, over the site's electrical wiring (see column 4 lines 49-62). As noted above, the utility company does not directly communicate with *Yee*'s utility meter 12 and/or customer terminal 11, save for supplying electricity. To expedite resolution of all disputed issues of patentability, if the foregoing interpretation of *Yee* is believed to be incorrect, kindly specifically indicate where Applicant's interpretation of *Yee* is believed to be incorrect, as well as the passages of *Yee* that are believed to support a contrary interpretation. See, e.g., MPEP 707.07(f), Answer All Material Traversed ("Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it").

From the foregoing, it should be apparent that *Yee* lacks several of the features recited in claims 1, 28, 35, and 37: *Yee*'s utility meter does not transmit any data, including any authorization request which includes (1) data identifying a credit/charge card account and (2) data verifying that the corresponding credit/charge card is present at the user interface unit. In particular, *Yee* does not account for, or care about, verifying that a credit/charge card is present at the location of the user interface unit; it does not need to do so, since *Yee* deals with *prepaid* funds paid at a customer service center (column 2 lines 48-51). No credit/charge card payments are made at the user interface unit, and in any event the prepaid funds are "tied to" the utility meter in question (see column 6 lines

9-23) and cannot be used for other meters. Thus, there is no need to verify the presence of a credit card.

U.S. Patent 4,351,028 to *Peddie et al.* then describes a utility prepayment system wherein processor 20 monitors power consumption (see FIG. 1), and a user prepays for power via credit or debit transactions initiated at keypad 24 and display 23. A modem 27 communicates the credit/debit instructions to the utility, which processes the payments (see column 3 lines 53-57, column 4 lines 3-7). FIG. 2 illustrates a system wherein a coin pre-payment mechanism 30 is also incorporated, whereby a user can prepay with cash rather than credit (column 4 lines 22-46). When the user approaches the limits of his/her prepaid limit, the display 23 can emit a signal that the user must apply additional payment for continued operation, and/or the processor 20 can intermittently cut power at switch 18 to indicate that power will soon be cut (column 4 lines 8-27). *Peddie* neither discloses nor suggests the use of a transaction authorization which includes data verifying that a credit/charge card is present at the location of the user interface unit, or data related to the meter location. Since a user simply enters credit/debit account information at keypad 24 (or supplies coins via mechanism 30) to pay for accrued energy charges (see column 3 line 53 onward), it does not matter whether a credit/charge card is present or where the meter is located: if payment is unacceptable, power is simply cut at the switch 18. In other words, since all the *Peddie* system cares about is whether acceptable payment has been rendered for metered power, the physical presence of a credit/debit card, and/or the location of the meter, are irrelevant.

The February 20, 2007 Office Action then asserts that:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Yee* to include that the utility meter transmits said authorization request to obtain said authorization of the transaction, as disclosed in *Peddie*, because it would advantageously allow to delegate this task to a third party service provider, thereby allowing to use less powerful processor in the meter and decrease operating cost.

However, this reasoning is flawed: there is no benefit whatsoever to modifying *Yee* to have its utility meter transmit a transaction authorization (e.g., a funds request), or any card-present data or a location identifier, since transmissions from the *Yee* utility meter are contrary to *Yee*'s purposes. As noted previously, *Yee* seeks to have a self-contained system which is easy and inexpensive to install (see column 1 lines 60-64): *Yee*'s utility meter 12 and terminal 11 can be installed/retrofit at some

location, without the need to also install some form of data communication line between the system (the utility meter 12 and terminal 11) and the utility itself. Note that *Yee* does not even require installation of a data communication line between its terminal 11 and its utility meter 12: rather, the terminal 11 communicates with the utility meter 12 after being plugged in, via the site's preexisting electrical wiring system (see column 4 lines 49-62). Instead, data communication with the utility – both electricity consumption data and funds information data – occurs solely through the memory card (see column 2 lines 41-45), which is periodically transported to a customer service center or point-of-sale terminal for reloading with funds (column 2 lines 48-51). To incorporate communications directly between the meter and the utility as asserted by the Office Action – as by incorporating *Peddie*'s modem communications – would require that a communications line be installed and connected to *Yee*'s terminal 11 (or to its utility meter 12) to communicate with the utility. But this defeats *Yee*'s objective of having an "easier and less expensive to install" system which can be readily retrofit without the need to modify existing wiring or install new wiring (see column 1 lines 60-63 and 32-42). It is thus contrary to *Yee*'s objectives to modify *Yee* in the manner asserted by the rejections, and the rejection should be withdrawn as per MPEP 2143.01 (subsection entitled "The Proposed Modification Cannot Render The Prior Art Unsatisfactory For Its Intended Purpose"). Consider that it appears that if one wanted a system as asserted by the Office Action, it appears one would simply use *Peddie*, without even using *Yee* in the first place.

Further, the underlying rationale of the rejection – that having the *Yee* utility meter transmit the authorization request as in *Peddie* "would advantageously allow to delegate this task to a third party service provider, thereby allowing to use less powerful processor in the meter and decrease operating cost" – is simply not true. *Yee* already uses IP-based communications between its utility meter 12 and terminal 11 to communicate funds and power consumption data from terminal 11 to meter 12. The *Yee* meter 12 transmits no messages whatsoever (including any transaction authorization or location identifier); it simply receives prepayment from the memory card and terminal 11 so that it continues to operate. If *Yee* was then modified to also communicate a transaction authorization and/or meter location data between the meter and the utility (or to some other "third party service provider" or authorization authority), *how does this truly decrease*

processing capacity in the meter and/or decrease operating cost? Consider that incorporating the features of *Peddie* actually adds cost and complexity, rather than reducing it, in that a communications line would need to be added from the meter to the utility (or other "third party service provider" or authorization authority). There would not in fact be any decrease in processor burdens or operating costs, and if it is still believed that there would be such a decrease, kindly explain what/where it is.

In addition, independent claims 1, 28, 35, and 37 have all been amended to require that the utility meter transmit an authorization request which includes data verifying that the credit/charge card is present, and/or data identifying the meter location. As noted above, neither *Yee* nor *Peddie* includes this feature, and there is no apparent reason to include this feature in either reference: in either reference, if the (memory or credit/debit) card is chargeable for the necessary amount, the meter continues to operate and power is supplied, regardless of the meter's location or whether a card is present.

In view of the foregoing, independent claims 1, 28, 35, and 37, and thus their dependent claims 2-12, 14-23, 27, and 36, are submitted to be allowable.

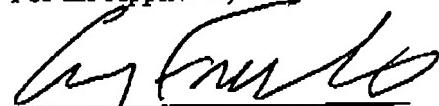
3. New Claims 38-41

New claims 38-41 further specify the usage of the systems/methods of the independent claims for *other than* paying for utility usage, e.g., use of the systems/methods to ensure non-fraudulent credit card use when buying goods/services off the internet (as discussed, for example, at page 7 line 10 onward of the application). Such usage is in no way shown or suggested by *Yee* or *Peddie*, which are only directed to payment of utility charges, and which seemingly cannot be adapted to accommodate other types of transactions.

4. In Closing

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

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